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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ABELSON, RONALD B

ART UNIT PAPER NUMBER

2666

DATE MAILED: 07/01/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/187,370

Applicant(s)

WILCOXSON ET AL.

Examiner

Ronald Abelson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 6-10, 17, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 6-10, 17, 19, and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

Claim Rejections - 35 USC § 103

1. Claims 1, 6-10, 17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olds ^{5,749,969} in view of Watanabe (US 4,052,670).

Regarding claims 1 and 19, Olds teaches a method and apparatus for interference management of a communications satellite serving multiple user terminals in a satellite based cellular communications system (fig. 1).

Regarding claims 1 and 19, the system comprises receiving a request for service from a user terminal (col. 9 lines 23 - 26).

Regarding claims 1 and 19, the system comprises accessing a database parameter of communications system parameters including user terminal database parameter (fig. 6 box 98, col. 9 lines 58-59), antenna pattern parameters (antenna pattern, col. 10 lines 1-4), spacecraft/antenna point error parameters (Doppler frequency shift, col. 10 lines 1-4). Note, the Doppler frequency error can be due to movement of the antenna.

Regarding claims 1 and 19, the system applies an algorithm to at least one communications system parameter to determine a connection parameter to minimize intra-system interference based

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in part upon the database of communications system parameters for the user terminal (non-interfering channel is chosen, col. 10 lines 1-4).

Regarding claims 1 and 19, the system allocates the connection and makes the connection (fig. 6 box 100, col. 10 lines 1-4).

Regarding claim 19, the system allocates the frequency channel and timeslot parameter in addition to making the connection (fig. 6 box 100, col. 10 lines 1-4).

Regarding claim 19, the system periodically determines the frequency channel and time slot to minimize intra-system interference (dynamically assigned in real-time, col. 2 lines 21-24).

Regarding claim 19, the system updates databases (fig. 3 box 42, lines 44-47).

Olds is silent on link condition parameters.

Watanabe teaches link condition parameters (col. 1 lines 15-24).

Therefore it would have been obvious to one of ordinary skill in the art, having both Olds and Watanabe before him/her and with the teachings [a] as shown by Olds, an interference management of a communications satellite serving multiple user terminals in a satellite based cellular communications system,

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and [b] as shown by Watanabe, the link condition affects the timeslot/frequency channel assignment, to be motivated to modify the system of Olds by not transmitting at a frequency over 10 GHz during in areas where it is raining. This would improve the system since the signal is attenuated by rain.

Regarding claim 6, monitoring if the communications connection is still active (Olds: fig. 6 box 94, col. 9 lines 23 - 26).

Regarding claim 7, redetermining the connection parameter based upon an updated communications system parameter (Olds: col. 10 lines 1-4).

Regarding claim 8, the connection parameter is a frequency channel (Olds: channel, col. 10 lines 1-4).

Regarding claim 9, time slot assignment (Olds: col. 3 lines 43-44).

Regarding claim 10, updating the group of communications systems parameters after the communications connection ends (Olds: fig. 6 box 96, 92).

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Regarding claim 17, redetermining the frequency channel and timeslot after a determination is made that the communications connection is still active (Olds: fig. 6 box 10).

Regarding claim 20, the plurality of communications system parameters comprises location of active user terminals and frequency channel and time slots allocated to the active users (Olds: fig. 4 see connections from satellites 52, 62, and 72 to users 56, 66, 76, fig. 6 box 100).

Response to Arguments

2. Applicant's arguments filed 4/28/2003 have been fully considered but they are not persuasive.

Regarding independent claims 1 and 19, the examiner disagrees with the applicant's contentions Olds does not teach or disclose applying an algorithm to communications systems parameters to determine a connection parameter nor disclose a database of communication system parameters that is accessed in response to a request for service from a user terminal (applicant: pg. 7 lines 4-7, 15-18). As stated previously, the system of Olds comprises accessing a database parameter of communications system parameters including user terminal

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database parameter (fig. 6 box 98, col. 9 lines 58-59), antenna pattern parameters (antenna pattern, col. 10 lines 1-4), spacecraft/antenna point error parameters (Doppler frequency shift, col. 10 lines 1-4). Note, the Doppler frequency error can be due to movement of the antenna). In addition, the system applies an algorithm to at least one communications system parameter to determine a connection parameter to minimize intra-system interference based in part upon the database of communications system parameters for the user terminal (non-interfering channel is chosen, col. 10 lines 1-4).

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened


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statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (703) 306-5622. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (703) 308-5463. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.



Ronald Abelson
Examiner
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June 25, 2003


DANSTON
THOMAS DANSTON